

Serial No.: 10/708,063
Art Unit: 3747
Examiner: HOANG, Johnny H.
Page 2 of 5

IN THE DRAWINGS

Please replace Figures 1 to 3 with Replacement Figures 1 to 3 enclosed herewith.

REMARKS

No claims have been amended, canceled or added. Figures 1 to 3 have been replaced.

Figures 1 to 3 have been replaced with Replacement Figures 1 to 3 as requested by the Examiner in the Office Action. Withdrawal of the objection is therefore respectfully requested.

Claims 1-24 remain pending in the application. Reconsideration and allowance of all of the claims are respectfully requested in view of the following remarks.

In the Office Action, the Examiner rejected claims 1-24 under 35 U.S.C. 102(b) as being anticipated by Suganuma (US 6,446,593).

Independent claim 1 recites a control unit assembly "wherein the at least one processing unit and the voltage regulator reside on a common circuit board". Independent claim 13 recites an engine management module (EMM) comprising, *inter alia*, "an engine control unit (ECU) mounted on a circuit board... and a voltage regulator mounted on the circuit board". Independent claim 20 recites an outboard motor comprising, *inter alia*, "a circuit board; at least one processor attached to the circuit board and programmed to control engine operation; and at least one voltage regulator attached to the circuit board". In all of these claims, the voltage regulator is on the same circuit board as the other electronic component described.

Suganuma teaches a "first control device 210 (i.e. ECU 214) [which] primarily controls engine operations including operations of the fuel injection system 106 and the ignition system 154[, and a] second control device 212 [which] watches fluctuations in electricity supplied to actuators including the fuel injectors 108 and the spark former 161" (column 8, lines 59-64). However, it would be clear to a person skilled in the art that Suganuma does not teach or suggest combining the first and second control devices on a common circuit board, and in fact teaches away from such a construction.

Suganuma clearly indicates throughout the specification that the first and second control devices must be physically separated from each other (see column 2, lines 33-34, 48-49, and 62-64, for example). In fact, Suganuma specifically teaches that these two elements should be in completely separate boxes (see column 12, lines 60-64). This is clearly contrary to what is claimed by the Applicants.

Although Suganuma teaches that a power regulator can be juxtaposed with a CPU in a single container (col. 10, lines 5-8), this does not suggest that they are on a common circuit board, but merely that they are in the same box. This is reinforced by the fact that "in the illustrated arrangements,... these components are physically separated and contained in different containers" (column 10, lines 8-10). Furthermore the CPU has a different function than the ECU, which Suganuma always indicates to be in a container separate from the power regulator, and therefore not on a common circuit board as claimed by the Applicants.

For these reasons, Suganuma does not anticipate claims 1, 13, and 20. Allowance of these claims are therefore respectfully requested.

Dependent claims 2-12 recite additional features of the invention and are therefore believed to be allowable for the same reasons recited above with respect to claim 1 and for the additional features recited therein.

Dependent claims 14-19 recite additional features of the invention and are therefore believed to be allowable for the same reasons recited above with respect to claim 13 and for the additional features recited therein.

Dependent claims 21-24 recite additional features of the invention and are therefore believed to be allowable for the same reasons recited above with respect to claim 20 and for the additional features recited therein.

In view of the above remarks, the Applicants respectfully submits that claims 1-24 are now allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Jonathan D. Cutler, Reg. No. 40,576

Attorney for the Applicant

Tel. (514) 732-7050

Fax (514) 732-7058